

**TATUM WASH
(TATUM BASIN INFLOW)
FCD GAGE ID# 4638**

STATION DESCRIPTION

LOCATION – The gage station is located south of Shea Boulevard and just east of 44th Street. The gage equipment is located on the left bank of the concrete inlet channel to the basin. Latitude N 33° 34' 50, Longitude W 111° 59' 01. Located in the NW1/4 NW1/4 NE1/4 S29 T3N R4E in the Paradise Valley 7.5-minute quadrangle.

ESTABLISHMENT – Gage installed at this location on May 6, 1998.

DRAINAGE AREA – Approximately 2.2 mi²

GAGE – The recording gage is a pressure transducer type instrument located on the left bank of the concrete inlet channel. The gage elevation is 0.10 feet gage height, levels of May 4, 1998.

There is one staff gage at this location. It is located with the pressure transducer on the left bank. It is difficult to read from the left bank. The staff gage reads directly in gage height.

There are no crest gages at this location.

ZERO GAGE HEIGHT – Zero gage height is defined by 0.0 on the staff gage.

HISTORY – Gage was originally installed on Tatum Wash at the 40th Street bridge, approximately 0.5 miles upstream. The gage at 40th Street was in operation from June 3, 1994 to May 6, 1998.

REFERENCE MARKS –

RM1 is a chiseled mark painted white on top of the left channel wall near the inlet gage standpipe. Elevation 4.67 feet gage height, or 22.03 feet gage height with respect to the outlet gage datum.

RM2 is a chiseled mark on the concrete pad near the railing post near the outlet gage standpipe. Elevation –3.03 feet gage height, or 14.33 feet gage height with respect to the outlet gage datum.

CHANNEL AND CONTROL – The channel at this location is a concrete channel with vertical side slopes. The channel is 65 feet in width and is approximately five feet deep.

The control for the channel is the drop structure approximately 42 feet downstream of the gage section.

RATING – The current rating is Rating #1 developed by T. W. Lehman using the weir equation and an estimated velocity head from the channel slope.

DISCHARGE MEASUREMENTS – Low flow measurements could be made at the gage.

POINT OF ZERO FLOW – The PZF is the low point in the channel at the gage cross section, elevation 0.00 feet gage height.

FLOODS – A flood of 805 cfs and 2.28 feet gage height occurred on August 24, 2006. A flood of 686 cfs and 2.05 feet gage height occurred on August 2, 2005. A flood of 452 cfs and 1.55 feet gage height occurred on February 13, 2003.

REGULATION – None upstream of the gage.

DIVERSIONS – None known

ACCURACY – Good

JUSTIFICATION – Monitor inflows to Tatum Basin.

UPDATE – July 21, 2011
D E Gardner